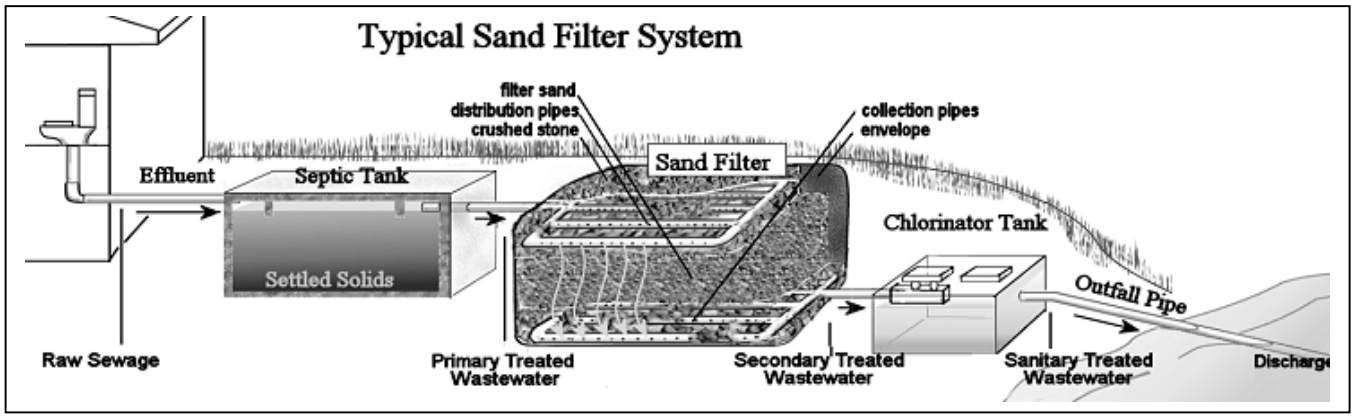
DEP FACT SHEET

Maintaining Overboard Discharge Treatment Systems

Updated: August 2004 **Contact:** (207) 287-3901

An overboard discharge (OBD) is the discharge of wastewater from residential, commercial, and publicly owned facilities to Maine's streams, rivers and the ocean. The wastewater from OBD facilities must receive *secondary treatment* before being *disinfected* and *discharged*. There are two general types of treatment systems; mechanical package plants and sand filters.



The most common system, the *sand filter system*, consists of a septic tank and a sand filter. When you flush a toilet or wash the dishes, the untreated wastewater flows through a septic tank where most of the solids settle out and are partially digested by microbes. The partially clarified wastewater flows from the septic tank into a sand filter enclosed within a plastic envelope. The wastewater flows out through distribution pipes into a layer of crushed stone. The wasterwater then is biologically treated as it filters down through a sand layer. Finally, the wastewater is collected in collection pipes before being discharged to a disinfection unit. The treated wastewater at this point should be clear and odorless (without solids or a strong septic or chlorine odor).

SAND FILTER SYSTEM CARE:

A. Pump the septic tank every three years
B. Mow the sand filter bed at least once yearly
C. Keep woody perennials and trees clear of the sand filter bed and chlorinator access ports.
D. If a wet spot appears on or near the sand filter bed notify the DEP inspector at (207) 287-3901.
E. We don't recommend the use of septic tank additives such as Rid-X.
F. Commercial systems need a grease trap. Grease and solids will cause rapid failure of your sand filter.

Mechanical package plants consist of a tank where waste is broken up, mixed and aerated. Naturally occurring aerobic bacteria digest the wastes. The aerated treated water is held in a calm condition for a time while the solids settle to the bottom. The clarified treated wastewater is pumped off the top and through a disinfection unit.

MECHANICAL SYSTEM CARE:

A. If you have a mechanical system, the law requires you to have a contract with a licensed service contractor to maintain the unit.
B. DEP inspectors will look for a tag on the treatment unit identifying the service contractor and the last date of service.

C. All mechanical systems require power, even when you are not there (except for the winter for seasonal properties). Mechanical systems must have an operating to alert the owner if the system malfunctions.

D. The treated wastewater from a properly operating system should be clear or lightly tinted brown, without solids. It will be odorless or smell earthy but should not have a strong septic or chlorine odor. If the system smells "septic" (like rotten eggs or raw sewage) call your service contractor.

Both systems discharge treated wastewater to a *disinfection unit***.** There are two types of disinfection units, *UV* and *chlorinators* (most common). In a chlorinator, the treated water contacts chlorine (usually tablets) and then remains in a tank for at least 20 minutes where bacteria and other pathogens are killed. **The treated and disinfected water must be discharged from the disinfection unit to below the low water mark of the receiving waterbody** (the ocean, river, or stream) **via an *outfall pipe*** unless the Department has granted a discharge pipe waiver.

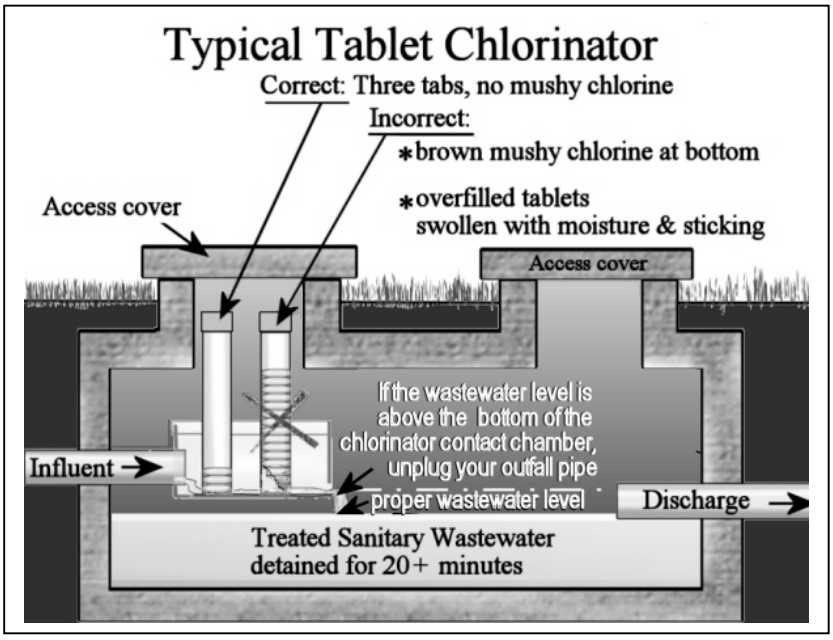
REQUIRED CHLORINATOR MAINTENANCE:

A. Hose out your chlorinator at the start of the season to remove deposits and brown mushy chlorine tablet remnants.

B. Put only two or three tablets in each tube. If you fill the tube, the chlorine swells and sticks in the tube.

C. Check the chlorine tablets every two weeks and add more as needed. You can purchase chlorine tablets at Wal-Mart, most hardware stores and pool suppliers.

D. The wastewater level should be below the bottom of the chlorine contact chamber. If it is higher, the discharge pipe may be plugged.



Chemicals can kill the "friendly" microorganisms that digest the wastes in your treatment system and will eventually wind up in the receiving waterbody. Because of this, toxic chemicals, harsh cleaners, paint, or non-biodegradable materials should not go down the drain. Using low-flow toilets and water saving showerheads will prolong the life of your treatment system. Mechanical systems like consistent use and tend to malfunction when overloaded on the weekend and "starved" during the week. Try to manage laundry, cleaning, and showers so the load is spread out as evenly as possible.

For more information:

If you have questions about:	Contact	Telephone	Email
License transfers/renewals, selling a property with an OBD, general program questions	Mike Demarest	(207) 287-3901	michael.demarest@Maine.gov
OBD system compliance, inspections, or inspection reports	Chris Johnson	(207) 287-7684	christopher.p.johnson@Maine.gov
OBD removal grant program	Richard Green	(207) 287-7765	richard.a.green@Maine.gov

If you prefer to write us, all of the staff above can be reached at:

Maine Department of Environmental Protection
State House Station 17
Augusta, ME 04333-0017

Please be sure to visit the DEP website through www.MaineDEP.com keyword: OBD